In the Claims:

This listing of claims will replace all prior versions and listings of claims in this application.

1 (Canceled).

2 (Previously presented). The method of claim 3 wherein the breath is analyzed after a predetermined period of time.

3 (Previously presented): A method for determining the blood level concentration of at least one agent selected from the group consisting of anesthetics, analgesics, muscle relaxants, sedatives, and anxiolytics, wherein the agent is administered into a patient's bloodstream, comprising:

sampling a patient's expired breath;

analyzing the breath for concentration of at least one substance indicative of the agent using sensor technology;

determining at least one blood level concentration based on the concentration of at least one substance indicative of the at least one agent; and

using a flow sensor to detect starting and completion of exhalation during said sampling step.

4 (Previously presented): The method of claim 3 further comprising the step of controlling an infusion pump for delivering the agent intravenously based on the determined blood level concentration.

5 (Previously presented). The method of claim 3 wherein the agent is delivered by a delivery method selected from the group comprising: intravenous continuous delivery, parenteral delivery, sublingual delivery, transdermal delivery, and intravenous bolus delivery.

PAGE 3/8 * RCVD AT 6/16/2005 4:34:17 PM [Eastern Daylight Time] * SVR:USPTO-EFXRF-1/25 * DNIS:2734732 * CSID:3523725800 * DURATION (mm-ss):02-12

6 (Previously presented). The method of claim 3 wherein the agent is delivered by continuous infusion.

7 (Previously presented). The method of claim 3 wherein the agent is delivered by an infusion pump.

8 (Previously presented). The method of claim 3 wherein the agent is selected from the group comprising Remifentanil and Propofol.

9 (Previously presented). The method of claim 3 wherein the steps are repeated periodically to monitor trending over time.

10 (Previously presented). The method of claim 3 wherein the agent is for amnesia.

11 (Previously presented). The method of claim 3 wherein the agent is for analgesia.

12 (Previously presented). The method of claim 3 wherein the agent is for muscle relaxation.

13 (Previously presented). The method of claim 3 wherein the agent is for sedation.

14 (Previously presented). The method of claim 3 wherein a combination of agents is administered.

15 (Previously presented). The method of claim 3 wherein the determined blood level concentration is measured to determine anesthetic blood concentration.

16 (Previously presented). The method of claim 3 wherein the determined blood level concentration is measured to determine analgesic blood concentration.

PAGE 4/8 * RCVD AT 6/16/2005 4:34:17 PM [Eastern Daylight Time] * SVR:USPTO-EFXRF-1/25 * DNIS:2734732 * CSID:3523725800 * DURATION (mm-ss):02-12

17 (Previously presented). The method of claim 3 wherein the determined blood level concentration is measured for a level indicative of recovery.

18 (Previously presented). The method of claim 3 wherein the sampling is continuous.

19 (Previously presented). The method of claim 3 wherein the sampling is periodic.

20 (Previously presented). The method of claim 3 wherein the patient's breath is analyzed by sensor technology selected from semiconductor gas sensor technology, conductive polymer gas sensor technology, or surface acoustic wave gas sensor technology.

21 (Original). The method of claim 20 wherein the sensor technology produces a unique electronic fingerprint to characterize the concentration of said at least one substance.

22 (Previously presented). The method of claim 3 further comprising the step of recording data resulting from analysis of the patient's breath.

23 (Currently amended). The method of claim 3 further comprising the step of transmitting or displaying data resulting from analysis of the patient's breath.

24 (Previously presented). The method of claim 3 wherein the analysis of the patient's breath includes comparing the substance sensed in the patient's breath with a predetermined signature profile.

25 (Previously presented). The method of claim 3 further comprising the step of capturing the patient's breath in a vessel prior to analysis.

PAGE 5/8 * RCVD AT 6/16/2005 4:34:17 PM [Eastern Daylight Time] * SVR:USPTO-EFXRF-1/25 * DNIS:2734732 * CSID:3523725800 * DURATION (mm-ss):02-12

26 (Previously presented). The method of claim 3 further comprising the step of dehumidifying the patient's breath prior to analyzing.

27 (Previously presented). The method of claim 3 wherein said analysis further includes detecting exhalation of the patient's breath with a sensor.

28 (Previously presented). The method of claim 3 wherein said substance indicative of the agent is free agent.

29 (Previously presented). The method of claim 3 wherein said substance indicative of the agent is metabolites of the agent.

30 (Previously presented). The method of claim 3 wherein said substance indicative of the agent is free agent and metabolites of the agent.

31 (Previously presented). The method of claim 3 further comprising the step of assigning a numerical value to the concentration of at least one substance indicative of the agent as analyzed upon reaching a level of pharmacological effect in said patient and, thereafter, assigning higher or lower values to the concentration based on its relative changes.

32 (Previously presented). The method of claim 31 further comprising monitoring the concentration of at least one substance indicative of the agent by monitoring changes in said value and adjusting administration of said agent to maintain a desired pharmacological effect.

33-37 (Canceled).

PAGE 6/8 * RCVD AT 6/16/2005 4:34:17 PM [Eastern Daylight Time] * SVR:USPTO-EFXRF-1/25 * DNIS:2734732 * CSID:3523725800 * DURATION (mm-ss):02-12

38 (Previously presented). An apparatus for administering intravenous anesthesia to a patient comprising:

at least one supply of at least one intravenous anesthesia agent;

intravenous delivery means for controllably intravenously delivery said at least one intravenous anesthesia agent to the patent;

a breath analyzer for analyzing the patient's breath for concentration of at least one substance indicative of the anesthetic agent in the patient's bloodstream and providing a signal to indicate the anesthetic agent concentration delivered to the patient; and

a system controller connected to the intravenous delivery means which receives the signal and controls the amount of anesthetic agent based on the signal.

39 (Original). A method for monitoring perflubron levels in an anemic patient, comprising:

(i) sampling a patient's breath;

(ii) analyzing the breath for concentration of perflubron using sensor technology; and

(iii) calculating the blood concentration of perflubron based on the concentration.

40 (Canceled).

PAGE 7/8 * RCVD AT 6/16/2005 4:34:17 PM [Eastern Daylight Time] * SVR:USPTO-EFXRF-1/25 * DNIS:2734732 * CSID:3523725800 * DURATION (mm-ss):02-12